BATES MANUFACTURING COMPANY, STOREHOUSE
(Bates Manufacturing Company, Building No. 8)
Northeast corner of Chestnut Street
and Hines Alley
Lewiston
Androscoggin County
Maine

HAER No. ME-60-A

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, P.A. 19106

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HISTORIC AMERICAN ENGINEERING RECORD

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Location:	Northeast corner of Chestnut Street and Hines Alley Lewiston, Androscoggin County, Maine UTM: 19.402370.4882780 Quad: Lewiston, Maine, 1: 24,000
Date of Construction:	1908
Engineer/Architect	Unknown
Present Owner	City of Lewiston City Municipal Building Pine Street Lewiston, Maine 04240
Present Use	Vacant, last leased for storage 1989-1990
Significance	This cotton storage building was built by the Bates Manufacturing Company to store large shipments of cotton required to supply the newly developed Jacquard Weaving Mill No. 6, constructed in 1892, and in anticipation of the completion of the 1912-1914 Mill No. 5 Weave Shed. This later mill specialized in cotton bedspreads and tablecloths, the signature product of Bates from the early 20th century until this day. Building No. 8 was an important and integral part of the Bates Manufacturing Company until the company was purchased by Bates Fabric Incorporated in 1976, at which point the mill was consolidated and cotton was replaced for the most part with stain resistant artificial materials.
Project Information:	The city proposes to demolish this building for a surface parking lot serving the currently being redeveloped Bates Mill complex, which was partially financed through a federal 1994 EDA Grant. This documentation was undertaken to satisfy part of the required mitigation. Russell Wright, Architect 54 North High Street Bridgton, ME 04009

Summary Description of Bates Manufacturing Company, Storehouse (Building No. 8)

Exterior: Building No. 8 is located in the extreme southwest corner of the Bates Manufacturing Company mill complex, contiguous to Building No. 7, a cotton storehouse erected in 1886, and directly across an alley from Building No. 2 - Storehouse (1854, altered 1867) and Building No. 3 - Mill Annex (1928). Constructed in 1908 as a cotton storehouse, the brick and heavy timber mill construction warehouse is 253 feet long by 111 feet deep, laid out on a northwest-southeast axis. The structure has a full basement and four full stories. The east and west walls are non-bearing walls, the east wall with 22 bays, the west with 24 bays. The south end wall is blind, and the north end wall is the south wall of the earlier Building No. 7. The east side of the storehouse was served by a siding of the Maine Central Railroad that ran along the alley northward across the Cross Canal to terminate at the Lewiston Freight Station just south of Main Street -the tracks have since been removed. Access to the first floor was provided by a series of eleven loading doors that opened to a covered eight foot wide loading dock that extended the full length of the building, butting to the southeast corner of Building No. 7. The platform and roof of the loading dock are missing, but pockets in the brickwork for floor joists and roof rafters remain, spaced at 10' 0" on center. Fenestration at the first floor level of the east elevation consists of, from south to north, a loading door, loading door, window, window, loading door, a door serving the south elevator, loading door, window, window, loading door, window, window, loading door, window, window, loading door, a door serving the north elevator, loading door, window, window, loading door, window. The basement level and the second through fourth floors of the east elevation repeat the 22 bay pattern, with a window in each of the openings. The west elevation, basement through the fourth floor, is 24 bays long, consisting of all windows. The masonry exterior walls are laid in common bond, 8:1 with the bonding course laid in Flemish Bond. There are no belt courses or a watertable at any of the three exterior walls. Machine molded bricks were fired to produce a narrow color range of warm medium red to dark brownish red, and were set in portland cement mortar, the joints struck flush. All door and window opening, with the exception of the windows in the basement below the loading doors in the east elevation, are spanned by triple row-lock segmental arches. The basement windows under the doors are spanned by a row of standing headers resting on an iron lintel. All of the 6' 0" wide window openings have quarry faced granite sills, brick jambs and hammered wire glass lights set into fixed, galvanized metal sash. The windows in the basement level of the west elevation, because of a change in grade, have two rows of four lights, all other windows a single row of four. The loading doors, with the exception of the southern-most door, which is a modern overhead door, are double leaf, 6' 5" wide by 8' 0" tall, metal clad over wood, hung on wrought iron strap hinges on pintles that are set into the brickwork, and rest on metal wrapped timber thresholds that are supported by the row of standing headers that serve as the heads of the window below.

The pairs of doors, which are flush with the surface of the exterior wall, are secured with an

iron latch and hasp at the exterior, and wrought iron catches at the top and the bottom at the interior. The interior of the door openings are lined with angle irons at the jambs and head that act as stops for the outward swinging doors. The tops of the east and west exterior walls project slightly above the edges of the roof, the top of the wall enriched by a formed sheet metal cornice (fascia, heavy ovolo, fascia), the cornice broken at the elevator towers at the first and the third quarter points in the east elevation, where the same cornice profile is repeated along the eaves at all four sides of the flat roofed tower. The roof is divided into four equal sections by three brick fire walls running east to west, 1' 0" thick as they penetrate the tar, felt and gravel roof surface. The ends of the three 2' 11" high fire walls are expressed at the exterior elevations by projecting panels that rest on 22 course brick corbels, three along the west elevation, one at the east, where the first and third fire walls butt to the two elevator towers. The south end wall, also 2' 11" high and 1' 0" in thickness at the roof line, does not have the corbeled end treatment. The southern parapet and the three fire walls are flashed at the roof line with galvanized sheet metal let into riglets cut into the mortar joints, the top of the walls parged with mortar. Ventilation for the fourth floor is provided by sets of three 4" x 8" flues aligned in chimney-like constructions at the quarter points of the south end parapet wall, the three fire walls and the party wall between Buildings No. 7 and 8. The roof surface slopes gently from the east and the west edges for approximately ten feet, then becomes flat, with single interior drains cut into the center of each of the four sections, 6' 0" from each roof edge. There are three elevator towers at the roof, two for the original 1908 elevators at the first and third quarter points of the structure, and one for a later elevator built into the northeast corner of Building No. 8, butting to the south wall of Building No. 7. The original towers are of 1' 0" thick brick walls, 19' 0" x 23' 0" in plan, eight feet tall with a flat tar and gravel roof. The flat roof is surmounted by a pyramidal skylight, centered along the north south axis but east of center to light the off-center elevator shaft. The galvanized metal frames of the skylights are glazed with hammered wire glass, the skylights vented with fan-driven, galvanized circular vents. Access to the roof is provided through a 2' 8" x 5' 0" opening at the top of the stairs that run along the interior west wall of the elevator shaft and tower. The opening, in the north one-third of the tower's west wall, has a metal clad wood door hung on a pair of wrought iron strap hinges suspended from pintels bolted into the masonry, and secured at the exterior face with a wrought iron latch. The door opening is framed with angle irons to create stops, the door swinging outward. The roof-top enclosure for the later north elevator is 10' 0" x 15' 0" in plan, 16' 0" tall, and is recessed behind the east elevation of Building No. 8. There is a single door opening centered in the south wall.

Interior: interior access to Building No.8 is gained only from the first floor of Building No. 7 through a metal clad fire door set into the party wall just west of the later elevator, The door measures 6' 7" x 6' 6" and is hung on a track to slide westward along the north face of the party wall. The head of the opening is fitted with a 2 1/2" angle iron, the lower half of the jambs protected by 2' 0" wide steel plates. The remaining floors are not in line, with the result that there are no connecting doors at any other level. Building No. 7 can be entered through

an exterior door in the extreme east corner of its south elevation, at the end of the loading dock serving Building No. 8, and through an elevated passageway from Building 3 across the alley.

The plan of Building 8 consists of four separate storage rooms, each 62' 0" in width, the sections defined by the three interior, basement to above the roof, masonry fire walls mentioned above. The fire walls and the south end wall are 1' 8" in thickness, basement to fourth floor, the north party-wall between Building No. 7 and this building 2' 0" in thickness. Each of these five east-west walls are load bearing, while the long north-south running elevations are not. Ceiling heights, from finished floor to the underside of the floor above are 12' 1 1/2" in the basement, 7' 8 1/2" at the first through the third floors, and 9' 10 1/2" at the fourth floor. The heavy timber mill framing system consists of thirteen rows of posts running parallel to the east and west exterior walls, the first twelve rows from the east exterior wall spaced 8' 0" on center, the western most row 6' 3 1/2" from the center of the column to the wall. Each of the four sections of the storehouse has two posts in each row, the spacing varying from 20' 5 to 20' 7" in the southern third of the rows, those in the northern third varying from 20' 6" to 20' 8 1/2", with the spacing between the two posts constant at 20' 9". The one-story wood posts are eight inches square with chamfered edges, and are positioned directly above one another from the basement to the fourth floor. Each post rests on a square cast iron plate, 1 1/4" x 1' 8" at the basement, 1 1/4 x 9 1/4" at the first through fourth floors. The plates at the basement are set on the concrete floor, those at floors one through four laid directly on a 2 1/2" splined plank sub-floor, with a one inch thick finish floor cut to fit around the plates. There is no visible evidence of the use of pintels or other devices to hold the bottom of the posts in place, but the posts appear to be in perfect alignment at this time. The posts support timber floor beams, 9 1/2" by 15 1/2" at the first through fourth floor levels, reduced in size to 6" x 14" at the roof, each beam being in three sections. The north and south ends of the beams are let into pockets in the masonry partitions, resting on a full width rolled iron lintel over a row of standing headers, both of which are supported by a six course corbel. There is no visible evidence of the use of wall hangers or wall boxes at the pockets. The beams rest in a shallow trough at the top of cast iron 9" x 24" two-way post caps, the ends of the caps cast in a fillet, cyma-recta, cavetto profile, and are spliced over the center of the post. Like the wall pockets, there are no indications of straps or stirrups to secure the beams, but given the tightness of the splices, it is assumed that the joint is fastened in the typical fashion of pintles set into the top face of the beam.

Access to the basement and to the upper floors is limited to stairs placed along the interior face of the west wall of the two original elevator enclosures, located at the first and third quarter points along the east elevation. The stairs to the basement are wooden closed stringer, open riser constructions consisting of 18 risers, the stairs to the upper floors reduced in length because of the lower ceiling heights to 12 risers. All of the stairs have pipe intermediate railings and hand rails, both sections bolted to the floor and to the north wall. Once access to

the basement has been gained through the stairs in the elevator enclosures, two of the four contiguous storage sections of the building can be reached through single leaf metal clad doors located at the bottom of the stairs in the west wall of the two original elevator enclosures, the elevator enclosures themselves opening directly to the storage areas through doors in the north and south walls that facilitated the unloading of the cotton bales. The four sections of the basement are then accessible through 6' 1" x 6' 10" openings centered in the fire walls, with a similar opening connecting Buildings No. 7 and 8 located at the western one-third of the party wall. These openings are provided with single, metal clad counter-weighted doors that slide to the west along the north faces of the walls. The rectangular openings in the brick fire walls are spanned with timber lintels - there are no jamb liners. The door openings at the elevator enclosure between sections one and two are now filled with single metal clad doors, likely altered from the original double doors found at the south elevator enclosure when the elevator was removed in the mid 20th century.

The basement walls are a combination of stone and brick, the upper sections brick laid in common bond, 8:1. The lower sections of the east and west walls are constructed of quarry faced granite blocks to a height of 7' 5", the stone tapering to 5' 0" in height at the southern ends. The south end wall has similar granite blocks at the base, but the stonework is only 5' 0" high at the east, gradually reducing in height to 1' 8" where the south wall meets the west wall. The north wall, the party wall with Building No. 7, is entirely of brick masonry, as are the three fire walls that set off the four sections of the plan. The basement floor is a three inch concrete slab, poured without reinforcing on a six inch thick rubble base. The east and west ends of the 2 1/2" thick first floor are supported by 4" x 8" stringers that rest on 3' 0" wide, four course brick corbels let into the space between the window and door openings at the interior face of the exterior walls. This support system persists throughout the entire building, including at the top of the fourth level where the corbels help support the roof framing. The underside of the timber floor and the floor beams in the first five bays from the east wall in the southern most section of the basement have been lined with tin, the thin 8" x 16"sheets nailed to the wood floor and timber beams with interlocking seams, presumably for fire protection. In a similar manner, the entire floor structure of the second section from the north party wall between Buildings No. 7 and 8 has been covered with expanded metal lath and coated with a 1/4" layer of plaster. The remainder of the underside of the first floor is exposed timber.

The first through the fourth floors repeat the plan and most of the details found in the basement, including the elevator enclosures. However, there are no doors in the west walls of the elevator enclosures leading directly to the storage rooms. Door openings in the fire walls, which allow circulation between the storage rooms, measure 6' 0" x 6' 6" and are cut through four feet from the west wall of the elevator enclosure rather than being centered in the wall as is the basement. These doors are counter-weighted to slide along the north face of the partitions. Single leaf doors in the north and south walls at the elevator enclsure between the

first and second rooms (the elevator now removed) measure 5' 0" x 6' 6" and are hung on iron strap hinges to swing outward towards the east, while the south elevator is served by a pair of metal clad doors on iron strap hinges, also opening outward. The same doors and openings are repeated at all floors above the basement. The freight elevator in the south part of the building is stalled at the first floor, but was running as late as 1990. The 6' 10" x 9' 7" platform is set flush with the inside face of the east wall, centered on the north-south axis. It is framed with 9" x 14" timbers at the edges and rolled iron I-beams crossing at the diagonal, with the floor constructed of the same 2 1/2" material as the floors in the rest of the building. The lower walls of the elevator, to a height of 3' 0" are of 1" x 4" flat boards set vertically with one inch spacing between the boards, the upper wall areas in-filled with heavy gauge wire mesh set in metal frames. Three pair of sliding 6' 4" tall board gates, the boards set with one inch spacings, serve the elevator, one in the east wall opening to the loading platform, and one at each of the north and south walls, opening into the storage areas. There is no ceiling to the elevator platform, but the top of the walls are braced with a pair of 2 x 10's at one diagonal and an open wrought iron truss at the other. A cable is affixed to these cross braces where they intersect, and passes through a set of pulleys held in place just below the roof of the elevator tower by two diagonal built-up timber beams, the beams tied by tie rods affixed to angle irons bolted into the top and bottom edge of the beams. The elevator is hoisted by the cable, rising along two standing, rolled iron I-beams that serve as vertical guides. The electric motor for the cable and the switch gear is located in the south west corner of the basement floor of the elevator enclosure. The 2,500 pound capacity freight elevator was furnished by "Moore Elevator Works, 49 Pearl St., Boston, Ma." while the hoist gear assembly and electric motor came from "Morre, W. Williams & CO., Philadelphia, Pa." The elevator platform is set in from the north, west and south walls to provide walking room when the platform is at any particular level, and as mentioned above, open riser wood stairs along the interior of the west wall lead to the floors above and below. Originally, each floor in the east wall of both of the origial elevator enclosures included a single segmental arched window opening, duplicating those found throughout the building, but all of these windows have been bricked in at a later date. As mentioned, the original elevator in the north enclosure was removed at some time after construction, with the resulting open floor areas in-filled with flooring to match the rest of the floors. It appears that the areas at the first through fourth floors were used as office space. The basement level, however, was converted into a large rest room, based on the age of the fixtures, for Bates employees. The later elevator located in the northeast corner of Building No. 8 and opening to Building No. 7 as well measures 7' 0" x 10' 0" with the ceiling in the fully enclosed car at a height of 6' 0". This elevator was manufactured and installed by the George T. McLauthin Co., Boston and has a capacity of 8,000 pounds

The main floors are constructed of 2 1/2" hard maple planks, random width 5" to 8" and splined with a 1/2" x 1" continuous spline. These structural floors run east-west, perpendicular to the floor beams, and are covered with 1" maple flooring as a finish floor. The floors are

unfinished, the posts varnished. All of the brickwork is exposed at the interior, and is painted white, as are the floor beams. The exposed under side of the flooring is painted a warm light gray. Based on test scrapings, these finishes appear to repeat the original colors.

Heating for Building No.8 is provided by a central heating plant located just north of Building No. 7, using a limited pipe radiation steam system, most of which was hung from the ceiling on double pipe hangers. The entire building is sprinklered, using a wet pipe system affixed to the underside of the floors. Electrical service and lighting was also supplied from a central plant, stepped down to 575V with a three phase Delta system using pipe conduit and open bulb fixtures. There is a rest room along the east wall south of the south elevator enclosure that had a single sink and one water closet in a stall, and as mentioned, a large rest room facility with two stalls and a wash fountain in the basement level of what was the north elevator.

Building history: Building No. 8, completed in 1908, was the next to last building erected by the Bates Manufacturing Company, followed only by the Building No. 5, the weave shed put up in 1912-14. Bates Manufacturing Company was the first cotton mill erected after the Great Androscoggin Falls, Dam, Lock and Canal Company was reorganized in 1845 as the Lewiston Power Company, with most of the stock being sold to investors from Boston, one of whom was Benjamin E. Bates. Bates and the other officers of the Lewiston Power Company divided the available sites and water rights by leasing to each other, and by the end of 1852 the Bates Manufacturing Company was operating out of Building No. 1. The Bates group also owned and operated the Hill Mill, the second cotton mill of this period with its first building put into operation in 1854, and in 1865 Bates would take over the older Continental Mill. The Bates mills were expanded in 1854 with the addition of Building No. 2 and a one story office building, followed in 1865 by Building No. 3, a woolen mill erected behind Building No. 1. Construction was stalled during the Civil War, during which time Bates Manufacturing Company, envisioning a long conflict, virtually cornered the market on cotton. The large amount of cotton then coming to Lewiston caused the conversion of the original 1852 and 1854 picker sheds associated with Buildings No. 1 and 2 to cotton storehouses during the 1860's. In 1878 Building No. 3, then a woolen mill, was severely damaged by fire and would be remodeled for use as a cotton mill, adding to needs for storage, a need satisfied in 1888 with the construction of Building No. 7, the cotton storehouse contiguous to Building No. 8. The completion of Building No. 6, a new weaving mill put up in 1892 specifically to house the new Jacquard looms further increased the demand for cotton storage, and its success led to plans for a 330,000 sq. ft. weave shed, which was constructed in 1912-1914 as Building No. 5. It is likely that the construction of Building No. 8 as a cotton storage building was based on the existing demand for cotton storage to serve Building No. 6, the early Jacquard loom building, and the anticipated demand for storage of raw materials to serve Building No. 5. Building No. 8 replaced a row of five three story, frame tenements situated along Hines Alley, and two retail establishments with apartments at the upper floors along Chestnut Street.

The buildings and the lots were at that time owned by the Franklin Company, the successor firm to the Lewiston Power Company, the company founded by Bates and others in 1845 to lease the mill sites and water power rights.

Following World War One, profits at cotton mills in New England, including Bates, fell dramatically, and the Lewiston mills faced financial disaster (the directors of the Androscoggin Mill actually voted to liquidate in 1928, and it was thought that the Hill and the Bates Mills would soon follow this path). Rather than liquidate, Bates Manufacturing, along with the Hill Mill and the Androscoggin Mill, sold out to the New England Public Service Company in 1929. NEPSCO eventually sold the five mills that it had acquired in Maine to a firm in Boston in 1945, that firm consolidating the other four mills into the Bates Manufacturing Company, which was purchased by a New York financier in 1955 and renamed Bates Manufacturing Company of New York. With a continued decline in profit, Bates Manufacturing Company of New York disposed of the Androscoggin Mill (1956), the York Mill in Saco (1957), the Hill Mill (1971), and the Edwards Mill in Augusta (1973), leaving the Bates Mill in Lewiston as the sole survivor of what was the Bates Manufacturing Company empire. In 1976 Bates reorganized as Bates Fabric Company and consolidated its manufacturing space into a single building, Building 5. At this time Bates Fabric Company replaced cotton with stain resistent artificial fabrics, and the cotton storehouses, including Building No. 8, became superfluous. Building No. 8 remained vacant until 1983, when it was leased for storage for two years by the L. L. Bean Company. The final leasee was Gates Formed Fibre, Inc., Gates vacating the building in 1990. The city purchased the Bates property, including the vacant Building No. 8, in November, 1992

With the exception of floor damage at the fourth through second floor caused by a roof leak in the west part of the second section from the north, the roof, which has outlived its purpose, and other minor floor damage in limited areas of the first floor, Building 8 appears to be in fair to good condition. The overall structural system and all of the masonry walls are intact, with little or no movement, and the building is considered as stable.

Sources of Information and Bibliography

A. Engineering Drawings: No architectural, engineering or construction drawings have been located for Building No. 8.

B. Historic Views: Building No. 8 appears in numerous 20th century "birds eye" photographs of the mill properties, including a 1950 aerial view of many of the mills and a c. 1955 photograph of the Bates complex that shows only the roof of Building No. 8, both in the collection of the Bates Manufacturing Company Historical File maintained by the Lewiston Public Library. However, no historic photographs of the building itself have been located. Building No. 8 post-dates the engraved lithograph *Bird's Eye View of the City of Lewiston & Auburn*, printed in 1875.

C. Interviews

Lebel, Fred, president of Bates of Maine. Telephone interview by author and James Lysen, planning director, July 17, 1996, Lewiston. Unrecorded.

D. Bibliography

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E. Likely Sources Not Yet Investigated: a great deal of information regarding the evolution and development of the Bates Manufacturing Company, including board meeting minutes and financial reports, is included in the Bates Manufacturing Company Historical File, located at the Lewiston Public Library. Unfortunately, this file and additional materials held as part of the library's manuscript collection are in storage and are inaccessible, awaiting the completion of a new wing now under construction but not scheduled for completion until early 1997.